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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,704	05/23/2002	Alexander Dyck	1999/F-044	9977

7590

12/28/2004

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EXAMINER

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/914,704

Applicant(s)

DYCK ET AL.

Examiner

Krishnan S Menon

Art Unit

1723

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 December 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 01 November 2004. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: attached.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: 23.

Claim(s) rejected: 1,2,19-22 and 24-44.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

**GREGORY MILLS**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**

Attachment to Advisory Action

Amendments to claims 1 and 23 contain new issues which require further consideration. With respect to claim 1, the newly added element 'proviso that at least one SO<sub>3</sub>R group is present in said backbone' is new issue. Also 'said backbone' has no antecedent basis. Without an antecedent basis, the word 'backbone' for a polymer would be considered as the main chain of the polymer. There is no SO<sub>3</sub>R group in the main chain of the polymer as originally disclosed and claimed. SO<sub>3</sub>R is a pendent group attached to the main chain, and chemically, SO<sub>3</sub>R cannot form a part of the main chain. Examiner believes that this modification will not remedy the "n=0 problem" of the formula of claim 1. Re claim 23, the wherein clause of n up to 3 has two issues: one, at n=0, there is nothing; two, at n=1-3, the compound cannot be considered as a polymer. The 'n' in this formula is not the same as the 'n' of claim 1 from which this claim originally depended; it was considered as the 'n' representing a large number of repeat units in the general formula of a polymer (such as "[CH<sub>2</sub>-CH<sub>2</sub>]<sub>n</sub>" for polyethylene) when claim 23 was indicated as allowable. 'n' in claim 1 represents the number of SO<sub>3</sub>R groups attached to Ar<sub>1</sub>.

***Response to Arguments***

Applicant's arguments filed 12/6/04 have been fully considered but they are not persuasive.

(1) In response to the argument that the polymer backbone is a polyether ketone: The formula of claim 1 does not indicate any ketone group (  $-\text{CO}-$  ) group other than  $-\text{X}-$ , which can be only one of a list of several groups, and cannot be a ketone group if it is something else. Also,  $-\text{C}(\text{CF}_3)_2-$  cannot be a sulfonated ( $\text{SO}_3\text{R}$ ), and this argument is not clearly understood. **Applicants need to seriously review the formulae recited in the claims for errors.**

(2) In response to the argument that the '695 reference is for sulfonated polysulfones: This argument is also not understood, because the claims were rejected based on the '566 patent. Kawakami'695 was used only for the membrane thickness and intended use in claims 28,38 and 41-44. Having said that, Kawakami '695 teaches the  $-\text{C}(\text{CF}_3)_2-$  group in the polymer backbone in the abstract itself and in every formula shown in the reference. Unfortunately, the applicants' formulae in the claims represent this types of compounds as equally as polyether ketones. For example, claim 1 recites  $-\text{X}-$  as, among other things,  $-\text{S}-$ . Polysulfone has an  $-\text{S}-$  link (in  $-\text{SO}_2-$ ). The only possible ketone link in the claim is at  $-\text{X}-$ , which also can be equally an  $-\text{S}-$  link by the claim language. When one puts  $n=0$  and  $\text{X}=\text{S}$  (as in  $\text{SO}_2$ ) in the formula of claim 1, one would get the formula of Kawakami'695 abstract.

(3) Re claim 40: the '334 patent shows the polyether ketone formula in col 2 line 10, wherein the  $\text{Ar}_1$  and  $\text{Ar}_2$  can be represented by the formulae in col 3 line 10 and col 4 lines 35-40. Therefore the rejection is valid, even though the '334 ref for the rejection of claim 40 was a cut-and-paste error (from the first action), which is clear from the ref

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to the rejection of claim 32, from which claim 40 depends. The intended ref was '566 in view of '454; not '334 in view of '454.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Krishnan Menon  
Patent Examiner

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